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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,326	10/22/2003	Viktor V. Jarikov	86541RLO	3589

7590 09/06/2005

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/691,326	Applicant(s) JARIKOV ET AL.	
	Examiner Dawn Garrett	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-102 is/are pending in the application.
- 4a) Of the above claim(s) 2-10, 13, 15, 18-48, 51-59, 62-79 and 81-102 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 12, 14, 16, 17, 49, 50, 60, 61 and 80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/22/03; 3/24/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to the response to the election of species requirement submitted by applicant on April 20, 2005. Claims 50 and 61 have been amended. Applicant elected the compound of claim 80 as the first component, the compound of claim 50 as the second component, and the compound(s) of claim 61 as the dopant component. As a requirement of the election of species, applicant was requested to list all claims readable on the species elected. Claims 2-10, 13-15, 17-48, 51-60, 62-79, and 81-102 are indicated by applicant in the amendment as not reading upon the elected species and are indicated to be withdrawn non-elected claims. The examiner is also considering claims 14, 17, and 60 at this time as they clearly appear to also read upon the elected species. Claims 1, 11, 12, 14, 16, 17, 49, 50, 60, 61, and 80 are presently under consideration.

Specification

2. The disclosure is objected to because of the following informalities:

In the first paragraph of the specification, "now abandoned" should be inserted after "10/131,801" and the blank line should be deleted and filled in with the appropriate serial number/patent number (and status should be inserted if it is now abandoned or allowed).

Appropriate correction is required.

Claim Objections

3. Claim 80 is objected to because of the following informalities: Claim 80 contains some abbreviations for substituent groups. It is suggested that these abbreviations be fully spelled out to clarify the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 1 recites at least one dopant; however, claim 16 indicates the amount of dopant can be zero. Claim 16 is indefinite for reciting the dopant does not have to be present, which is contrary to the recitation of a dopant in parent claim 1.

Claim Rejections - 35 USC § 102 and 103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

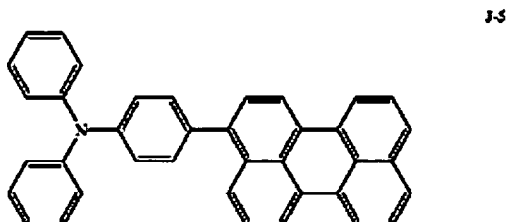
7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 11, 12, 14, 16, 17, 49, 50, 60, 61, and 80 are rejected under 35 U.S.C. 102(e) as being anticipated by Oh et al. (US 2003/0118866 A1). Oh et al. disclose an electroluminescent

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device comprising co-hosts Alq3 and compound “J-5” with dopant DCJTB (see par. 122, page 18). The ratio is 1:1:0.02. Compound J-5 is the following perylene derivative:



Oh et al. disclose further perylene derivatives on pages 5 and 6. Oh et al. is deemed to clearly anticipate the aforementioned claims.

9. Claims 1, 11, 12, 14, 16, 17, 49, 50, 60, 61, and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aziz et al. (US 6,392,250). Aziz et al. discloses a device comprising a mixed light emitting region comprising preferred electron transport material Alq3 (see col. 9, lines 37-45) and at least one dopant (see col. 10, lines 63) including perylene (see col. 10, line 67) and pyran DCJTB (see col. 11, lines 48-51). The dopants, which include “first component” perylene and dopant DCJTB are incorporated in an amount of 0.05-10 wt. % (see col. 12, lines 10-12) per instant claims 11 and 16. With regard to claim 12, Alq3 as the electron transporting material of the Aziz et al. device for the mixed region is included in an amount of 30-70 % wt. (see col. 12, lines 8-11). In alternative that Aziz et al. is insufficient to anticipate a device comprising two dopants including perylene and DCJTB, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed a device comprising Alq3, perylene and DCJTB in the same light emitting layer according to the teachings of Aziz et al.

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10. Claims 1, 11, 12, 14, 16, 17, 49, 50, 60, 61, and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aziz (US 6,392,250) in view of Fujita et al. (US 2003/0137241) discloses in analogous art. Aziz et al. discloses a device comprising a mixed light emitting region comprising preferred electron transport material Alq3 (see col. 9, lines 37-45) and at least one dopant (see col. 10, lines 63) including perylene (see col. 10, line 67) and pyran DCJTB (see col. 11, lines 48-51). The dopants, which include “first component” perylene and dopant DCJTB are incorporated in an amount of 0.05-10 wt. % (see col. 12, lines 10-12) per instant claims 11 and 16. With regard to claim 12, Alq3 as the electron transporting material of the Aziz et al. device for the mixed region is included in an amount of 30-70 % wt. (see col. 12, lines 8-11). Although Aziz et al. clearly teaches “perylene and the like” as suitable fluorescent dopant material for the Aziz et al. device, which reads upon the “first component” of the instant claims, Aziz et al. fails to set forth specific perylene derivative compounds according to the claim 80 formula. Fujita et al. discloses in analogous art it is known to add substituent groups to light emitting perylene and use the compounds in an organic electroluminescent device (see Fujita Formula (1) and description of substituent groups). It would have been obvious to one of ordinary skill in the art at the time of the invention to have used a substituted perylene compound as taught by Fujita in the Aziz et al. device, because Aziz et al. teaches that perylene and perylene-like compounds are suitable for the mixed light emitting region of the device.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dawn Garrett
Primary Examiner
Art Unit 1774

D.G.
August 31, 2005